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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/508,878	03/16/2000	GUSTAVO FERNANDEZ	P00.0449	3536

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EXAMINER

D AGOSTA, STEPHEN M

ART UNIT

PAPER NUMBER

2683

DATE MAILED: 09/05/2003

17

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/508,878

Applicant(s)

FERNANDEZ ET AL.

Examiner

Stephen M. D'Agosta

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 August 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 July 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

The amendment filed on 8-7-03 under 37 CFR 1.111 has been considered but is ineffective to overcome the Johnston reference.

1. The applicant argues that the prior art teaches away from their invention. The examiner disagrees – the prior art (combinations) cited teach both wired and wireless connections between phone and base/cradle which reads on the applicant's claims. The cited art also teaches registration procedures which reads on sending an identifier and echoing back the identifier (which provides additional security). See rejection below. ***Further narrowing of the claims is suggested.***

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 12, 2-6, 8-10, and 13** rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston et al. U.S. Patent 5,787,360, Saegusa et al. U.S. Patent 4,864,599 and Haraguchi US Patent 4,979,205 (hereafter referred to as Johnston, Saegusa and Haraguchi).

As per **claim 12**, Johnston teaches a method for logging a mobile unit on at a base station comprising the steps of:

recognizing a logon situation wherein at least one of the mobile unit and the base station determines that the mobile unit is not yet logged on at the base station (C5, L34-36 and L40-42);

generating an identifier (C5, L49-52 – ID is generated);

transmitting the identifier via a radio connection between the mobile unit and the base station (C5, L49-52 – ID is sent);

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~~requesting-transmitting a request for~~ identification with an acknowledgment signal via ~~transmission over the~~ radio connection between the mobile unit and the base station (C5, L40-42 – Request for ID and C5, L49-50 – acknowledgement sent)

local connection (a connection between mobile unit and base station only operates in a relatively short-range distance (C5, L21-23). So this limitation is interpreted to be a local connection)

**but is silent on** transmitting the acknowledgment signal separate from the radio connection AND echoing back the identifier via the radio connection between the mobile and base station and memorizing the received echoed back identifier

acknowledging the receipt of the echoed back identifier via the radio connection between the mobile and base station.

Saegusa teaches the transmittal of the product ID number from a cordless unit to an access unit/base station as an acknowledgement that the cordless phone has correctly received the “setup signal” (C3, L48-67 to C4, L1-10) and storing of the identification numbers in electrically EPROM (abstract). This verification operation is required to avoid interference (C1, L11-23) from other wireless devices. Saegusa teaches transmission of ID number(s) AND verifying that they were correctly received which reads on echoing back/acknowledgement. The examiner notes that the “echo back” procedure is merely an added step furthering the security process which is not novel (eg. a design choice – there is a trade-off between how long it will take to authenticate a user versus how much security checking is required). There can be more steps or less steps regarding how the system authenticates the user, each of which would read on the claimed invention except for the fact that one uses more/less security checking.

Haraguchi teaches a data connection (eg. local connection) between the phone and the cradle/charging contacts that allows for data transmission (abstract).

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that the cordless phone sends an acknowledgement to the base station separate from the radio connection, to ensure that the base station knows the cordless phone has received the registration information.

As per claim 2, Johnston teaches the method according to claim 12, wherein the local connection is electrical (eg. RF or wired) [C5, L36-38], infrared or “other communications technology” (C17, L15-17) which would allow for the group consisting of a magnetic connection, an inductive connection and an optical connection.

As per claim 4, Johnston teaches the method according to claim 12, the radio unit contacts the home base station via RF or temporary wired connection (which would be a digital/binary connection) (C5, L34-39) [eg. wherein a binary signal is transmitted via the local connection]. Note that the RF link, for example, would also have two (binary) states through the use of amplitude/frequency modulation.

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As per **claim 8**, Johnston teaches the method according to claim 12, **but is silent on** wherein the acknowledgment signal is generated by the mobile unit and is transmitted to the base station.

Saegusa teaches the transmittal of the product ID number from a cordless unit to an access unit/base station as an acknowledgement that the cordless phone has correctly received the "setup signal" (C3, L48-67 to C4, L1-10). This verification operation is required to avoid interference (C1, L11-23) of other wireless devices.

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that an acknowledgment signal is generated by the mobile unit and is transmitted to the base station, for situations that require the base station to know if the mobile unit received the identification number or to retransmit it again.

As per **claim 9**, Johnston teaches the method according to claim 12, **but is silent on** wherein the acknowledgment signal is transmitted within a predetermined time interval in response to a request signal transmitted via the radio connection.

One skilled in the art of communications knows that it is customary to use timers/time-out periods for situations that require logon, authentication, etc.. This eliminates the possibility of endlessly waiting for a positive acknowledgement. Many automated systems (ie. ATMs, Voicemail, IVR's, etc.) provide a timer that will cancel a session should a response not occur within a specified time limit (ie. the user does not provide his/her ATM/Voicemail PIN or IVR account number). Hence, one skilled in the art would use a predetermined time interval to repeat the acknowledgement process should it fail. [Note that Johnston does allude to excessive delay for the propagation of voice signals, C13, L5-24].

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that acknowledgment signal is transmitted within a predetermined time interval in response to a request signal transmitted via the radio connection, to eliminate possibility of an endless wait state during login/authentication.

As per **claim 10**, Johnston teaches the method according to claim 12 **but is silent on** further comprising the step of: transmitting logon data via radio connection.

Johnston does teach the invention supporting computing devices such as mobile laptop computers (figure 1, #18) which can connect to a LAN interface (C3, L45-52) for data communications. One skilled in the art of computer networking knows that a user must logon to a LAN before it can send data via the LAN. Hence, logon data would be transmitted via the radio connection as the user logs-in to the server.

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that logon data is transmitted via the radio connection, to provide a mobile computer/PDA user the ability to logon to a LAN and transmit/receive data.

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As per **claim 13**, Johnston teaches a communication system having at least one mobile unit and at least one base station (figure 1 shows phones #14 and base stations #12), comprising:

- a means for recognizing a logon situation (C5, L34-40 teaches that a radio unit cannot operate before it subscribes to a base station as its home base station);

- a means for generating an identifier (C5, L49-52 – base station's control unit sends identifier to mobile unit after it requests one);

- a radio connection between the at least one mobile unit and the at least one base station (C5, L40-42 – radio unit contacts base station for identifier);

- a local connection separate from the radio connection between the at least one mobile unit and the at least one base station (C5, L36-37 – mobile unit must be "within range" of the base station);

- a first means for transmitting the identifier via radio connection (C5, L49-52 – base station controller uses radio link to send identifier); and

- a second means for transmitting a request for identification signal via the radio connection (C5, L40-42 – request for identification); and

- a third means for transmitting acknowledgement via the local connection (C5, L36-37 – mobile unit must be "within range" of the base station and C5, L49-52 for transmission of acknowledgement);

**But is silent on:** (second means) with an acknowledgment a fourth means for echoing back the identifier via the radio connection between the mobile and base station and memorizing the received echoed back identifier

A fifth means for acknowledging the receipt of the echoed back identifier via the radio connection between the mobile and base station.

Haraguchi teaches a data connection (eg. local connection) between the phone and the cradle/charging contacts that allows for data transmission (abstract).

Saegusa teaches the transmittal of the product ID number from a cordless unit to an access unit/base station as an acknowledgement that the cordless phone has correctly received the "setup signal" (C3, L48-67 to C4, L1-10) and storing of the identification numbers in electrically EPROM (abstract). This verification operation is required to avoid interference (C1, L11-23) from other wireless devices. Saegusa teaches transmission of ID number(s) AND verifying that they were correctly received which reads on echoing back/acknowledgement. The examiner notes that the "echo back" procedure is merely an added step furthering the security process which is not novel (eg. a design choice – there is a trade-off between how long it will take to authenticate a user versus how much security checking is required). There can be more steps or less steps regarding how the system authenticates the user, each of which would read on the claimed invention except for the fact that one uses more/less security checking.

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that the mobile sends an acknowledgement separate from the radio connection, to provide 100% verification that the mobile unit received the identification.

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As per **claim 3**, Johnston teaches the method according to claim 12, wherein the mobile radio can be wired to the base station (C5, L36-38) [eg. local connection is an electrical connection] **but is silent on** the connection being via respective charging contacts of the mobile unit and the base station.

Haraguchi teaches data transmission (eg. sending of identification codes) via the charging contacts of the handset and base unit (abstract).

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that a data connection can be made via respective charging contacts of the mobile unit and the base station, to provide added security since a phone user must have access to the base unit.

As per **claim 5**, Johnston teaches the method according to claim 12, wherein the step of recognizing the logon situation is triggered when the mobile unit is placed onto the base station.

Haraguchi teaches the sending of an identification code when the phone is placed in the base unit (abstract). One skilled in the art would use this to trigger a logon situation.

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that recognizing the logon situation is triggered when the mobile unit is placed onto the base station, to force the user to be located at a base station which provides added security – ie. the user must gain access to the base unit NOT by an RF link.

**Claim 6** rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston and Saegusa and Haraguchi further in view of Chiu et al. U.S. Patent 5,500,888 (hereafter referred to as Chiu).

As per **claim 6**, Johnston teaches the method according to claim 12, wherein the step of generating the identifier is based upon the IP Address of the base station and a radio unit reference number (C5, L49-56) **but is silent on** includes generating the identifier as a random number.

Chiu teaches a security code that is generated by random number generation (abstract). This design would provide better security than Johnston's system since Johnston merely "randomizes" his ID by using a number which represents the number of phones connected to the base station. One skilled in the art would provide a counter that counts the number of phones attached, to limit said number of phones, in conjunction with a random replacing the number of phones. This would provide better security since the number could be a very large number instead of being limited by the number of phones that can connect to the base station.

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that the identification ID is based upon a random number, to decrease the likelihood of an unauthorized person determining said ID since it cannot be easily guessed.

**Claim 7** rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston and Saegusa and Haraguchi further in view of D'Amico et al. U.S. Patent 5,077,790 (hereafter referred to as D'Amico).

As per **claim 7**, Johnston teaches the method according to claim 12, **but is silent on** wherein the identifier is generated by the mobile unit and is transmitted to the base station in the step of transmitting the identifier via the radio connection.

D'Amico teaches secure over-the-air registration of cordless telephones (title) whereby the portable unit (eg. cordless phone) sends the base station a request for registration which comprises the link identification number for over-the-air registration and the portable identification number (abstract).

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that the identifier is generated by the mobile unit and is transmitted to the base station, to provide the mobile unit with the choice of selecting its own identifier – eg. may want to keep the same identifier for a period of time.

**Claim 14** rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston and Saegusa and Haraguchi further in view of Anglikowski et al. U.S. Patent 4,736,404 (hereafter referred to as Anglikowski).

As per **claim 14**, Johnston teaches an apparatus having at least one mobile unit (figure 1, #14) and a base station (figure 1, #12) comprising and a procedure whereby the mobile requests an identification number and is provided one (with an acknowledgement) from the base station (C5, L7-60) **but is silent on** various details of the hardware configurations and the steps taken during the phone-to-base station data transmission, for example:

(1) a base station having a first control unit, a confirmation receiver, a first charging connector connected to the confirmation receiver and a first analog assembly configured for sending and receiving radio frequency signals;

(2) at least one mobile unit having a second control unit, a confirmation transmitter, a second charging connector connected to the confirmation transmitter and a second analog assembly configured for sending and receiving radio frequency signals;

(3) a radio connection between the base station and the at least one mobile unit via the first and second analog assemblies; and

(4) a local connection formed by the connection of the first and second charging connectors;

(5) wherein the first and second control units are configured to detect a logon of the at least one mobile unit to the base station;

(6) the second control unit generates an identifier and sends the identifier to the second analog assembly;

(7) the second analog assembly transmits a first data frame including the identifier to the first analog assembly via the radio connection;



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(8) the first analog assembly is configured to receive the first data frame and send the first data frame to the first control unit and transmit a request for identification with an acknowledgment signal to second analog assembly via the radio connection in response to the first control unit;

(9) the confirmation transmitter transmits the acknowledgment signal to the confirmation receiver via the local connection in response to receiving the acknowledgment signal request for the identification in the second analog assembly.

The first analog assembly echoes back the identifier to at least one mobile unit via the radio connection upon receiving an acknowledgement signal, and the second analog assembly sends a signal back to the first analog assembly acknowledging receipt of the identifier via the radio connection.

Johnston does teach communication between a mobile and a base station (1 and 2 above) via an RF link (3 above) to register/subscribe said mobile with said base station. Johnston teaches a local connection (4 above) since the base station can be wired and the use of an acknowledgement being sent (8 and 9 above). Johnston also teaches that the phone and base station are preprogrammed to logon/subscribe when first activated within range of each other (5 above) and that the base station will send an ID/Acknowledgment message to the phone via RF link (6 and 7 above) – note that an acknowledgement would be generated/received by a “confirmation” unit or software routine (1 above).

Saegusa teaches the transmittal of the product ID number from a cordless unit to an access unit/base station as an acknowledgement that the cordless phone has correctly received the “setup signal” (C3, L48-67 to C4, L1-10) and storing of the identification numbers in electrically EPROM (abstract). This verification operation is required to avoid interference (C1, L11-23) from other wireless devices. Saegusa teaches transmission of ID number(s) AND verifying that they were correctly received which reads on echoing back/acknowledgement. The examiner notes that the “echo back” procedure is merely an added step furthering the security process which is not novel (eg. a design choice – there is a trade-off between how long it will take to authenticate a user versus how much security checking is required). There can be more steps or less steps regarding how the system authenticates the user, each of which would read on the claimed invention except for the fact that one uses more/less security checking.

Anglikowski teaches control units (figure 1, #13, #53) in both the base station and handset (1 and 2 above) and a local connection (via charging unit interface, 1 and 2 above) to transmit data (4 above) [abstract]. Since Anglikowski teaches data transmission via the charging interface, one skilled in the art would also be able to send acknowledgements through this interface as well (9 above).

Haraguchi teaches a data connection (eg. local connection) between the phone and the cradle/charging contacts that allows for data transmission (abstract).

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that system is configured and operates as outlined in steps 1-9 above, to provide an architecture with specific security steps to ensure that the user is authorized to utilize the system.

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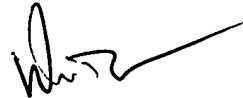
**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 703-306-5426. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist on 703-306-0377.

SMD  
29 August 2003



WILLIAM TROST  
SUPERVISORY PATENT EXAMINER  
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